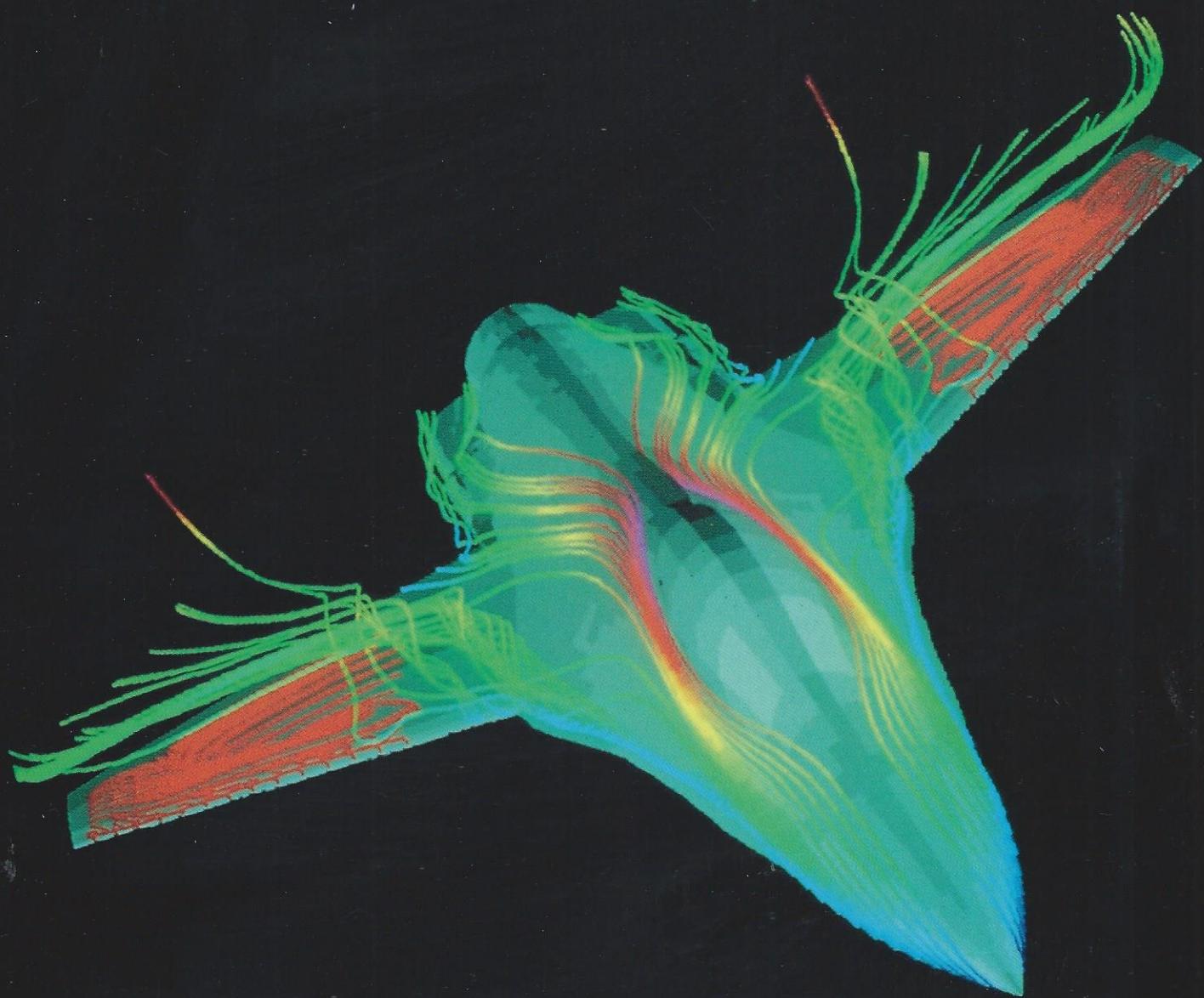


Applications Software For Cray Supercomputers

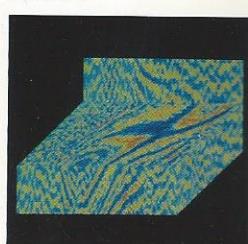
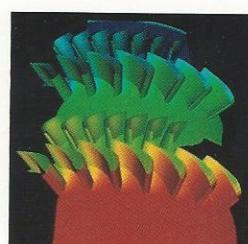
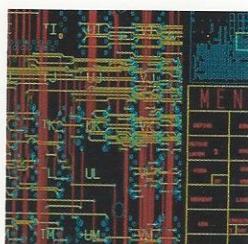
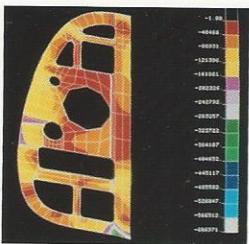


July, 1987

CRAY

Applications Software Available for Cray Sup

Structural and Mechanical Engineering	MODULEF MOVIE.BYU MSC/NASTRAN MULTIFLEX MULTIFLEXSG NIKE2D NIKE3D NISA II NISAOPT NOAMAS NPS OPTIM NUPIPE-II OPTDES.BYU PAM-CRASH PATRAN II PDE/PROTRAN PERMAS® PIPANL PIPELINER PIPEDS PIPESTRESS PIPSUP PIPLIN PISCES PISCES 2DELK™ PISCES 3DELK™ PISCES-PIPE PR2D PR3D RADJA SAP SEPS SESAM SIMFLEX-II SINDA/1987/ANSI SPACE STAAD® STARSTRUC STIFFPLATE TACO3D TAURUS TMG TOPAZ WECAN WESPLAT WESTDYN WESTDYN, General Post-Processors	WESTDYN, TIME, HISTORY WESTOP ZPIPE	MCNP MORSE-CG MORSE-CGA NAGS NORDOS NOTRUMP NUCLIB ONEDANT OPERLIM OPTOAX ORIGEN PDQ RADTRAN3 REBUS3 RELAP5/MOD1 RELAP5/MOD2 SATAN VI SCAP-II SEP SETS SIMMER2 SORCERY STAR STIFFPLATE TRAC-PF1/MOD1 TWODANT TWOHEX WREFLOOD	ITCHVALVE KIVA MCAERO NASA-VOF2D NEKTON NISA/FLUID NLRAERO OMNIPLAT PANAIR PHOENICS PNOZ/2D PNS QUADPAN™ ROTOR SALE3D SCRAMIN SIMP SPEAR/3D STREAM TAIR TAXI TNS TWING TAP-A TAWFIVE THERST VSAERO WATCHEM ZEUS/2D
Electronics and Electrical Engineering	AOS/MAGNETIC™ AOS/MAGNUM™ FEAP GREENFIELD™ HSPICE IGSPICE NCA/DVS™ NEMOS PRECISE SALT™ SPICE-GT SPICE UM-SPICE			
Nuclear Engineering and Power	ADIOS ADLIB ANISN-W ASPECTW BASEPLATE BARMOM CLASIX-3 COBRA41 COCO CORA-II CRAB2 CRAC 2 DANDE DIF3D DOT DOTIII-W DYNANO 4 EGAD-W FACTW FATHOM360, FATHOM360S FORM-W FRAME FTD GAMLEG-W HAL-1987 HECTR LISA LOCTA-IV LOFTRAN LOTIC II			
Computational Fluid Dynamics	ADAPT 2D ADAPT3D APPL/3D ARC2D ARC3D BACCHUS BANGUP CNS CONCHAS-SPRAY CONTINUSYS EPPLER FDL3D FIDAP* FLO 27-42 FLO 52-67 FLOW3D FLUENT™ FLUENT/BFC™ GRAPE INCA/3D INGRID INS3D			
Petroleum	AQUADYN AQWA BIZPAK® BLUEPACK-3D CALTUB CHEF CHEMFLOOD™ COMPIT™ CONING DECICE DISCO® DYNAFLEX® DYNAPLOUS ECLIPSE FRAGOR GEINT GEOPAK GEOSYS™ GEOVECTEUR GIMAGE HCOMP™ HEXTRAN®			



supercomputers

HFS™
HOT
IDMS
KRIGPAK
MIMIC™
MTRAN
MULTI
MULTI-TRITIR
N-HANCE™
PEPIE
PIPEPHASE™
PIPESD
POMEVOL
PROCESS™
PVT
PYROL
Pre-stack Depth Migration
QUIKLOG™
QUIKRAY®
QUIKSHOT®
QUIKVSP®
RADJA
RASPAK
RASPAK-C
RAYMAP®
RETORT
SDL™
SEISPAK
SESAM
SGL™
SKS
SLIPR
SURFNET™
TCON™
TGNET™
TGOPT™
THERMT™
TLNET™
TLOPT™
TRITRICOMP
UNIGKS
VAPEUR
VESPA™
VIP®
VIP®-COMP
VIP®-GAS
VIP®-MISC

Chemical Engineering, Chemistry and Biotechnology

AMBER
CASCADE

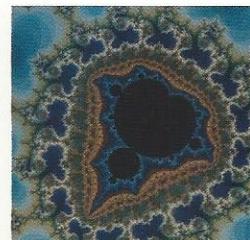
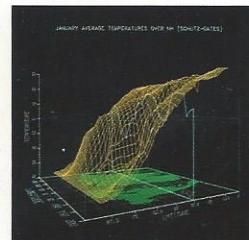
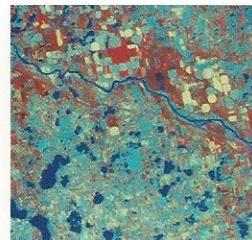
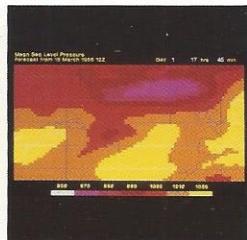
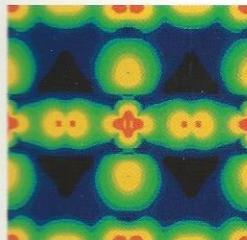
CECTR P
CHARMM
EQ3/6
GAUSSIAN 82-86
GRADSCF
GROMOS™
LAZY PULVERIX
MADCAP
MITHRIL
MOLSCAT
MOPAC
RNAFOLD
SHELXS-86
TDC
XTAL

Miscellaneous Science and Engineering

BASSIN
BREACH
CNVFAC/GRAY
COULOMB, RSUM, GSUM
CPOLXM
DAMBRK
DIFFUSE83
DWOPER
FEM3
GEM2D
HEC
MAGNA/FEM
MALAPROP
MARK III™
ODRIC
PSPP
QMESH
ROFOS
SPECTR3T
THERMX
TIMETABLE™

Graphics and Imaging

ANLPS
BIZPAK®
CADSIM
CGS
CONTOURING SYSTEM
CP-IMAGE
CP-MAP
CPS-1®
CSADIE
DD-PLOT
DI-3000® EXTENDED



DISPLAY II
DISSPLA®
DP3D™
EPIC
GEOINT
GEOPAK
GHOST-80
GIMAGE
GINO
GK-2000™
GKSGRAL®
GLDPLOT
GMOS
GRAFL
GRAFMAKER™
ISSCO-GKS™
KRIGPAK
LANL-J501
MAPPER
ORION
PI-PLOT
PLOTLIB
METAFILE SYSTEM
MOVIE.BYU
NCAR-GKS GRAPHICS
LIBRARY
NOVA*GKS
OASIS
PRECISION VISUALS®
TOOLS
RASPAK
RASPAK-C
SD
SEISPAK
SKETCH
SVDI
TAURUS
TECPLOT
TEMPLATE®
UPSON
UNIGKS
WAVEFRONT Dynamic Imaging System™

Mathematics and Statistics

AMOSLIB
BCSLIB MATH/STAT LIBRARY
BENCHLIB
BIMOND
CISI MATHEMATICAL LIBRARY
CRDEC

DASSL
DSS/2
EISPACK
ELLIPTIC
ELLPACK
FACSIMILE
FITPACK
GLIM
HARWELL SUBROUTINE LIBRARY
ICCG2-3
IEEE SIGNAL PROCESSING PACKAGE
ILUCG2-3
IMSL Library
ITMETH
ITPACKV
LINPACK
LSODPK
MATH ADVANTAGE®
MATHEMATICAL SUBROUTINES
NAG™ Library
ODEPACK
PORT
POSSOL
REDUCE
SCI LIB
SCIPORT
SLATEC
SLAP
SPARSPAK
SPSS-X™
TOEPLITZ
VECTORPACK SUBROUTINE LIBRARY™

Simulation and Mathematical Programming

ACSL
ADS
ARRIBA
BATCHLP
CADSIM
COPES
DIDSIM™
EASY5 Engineering Analysis System
FTD
GRG2
LAMPS

MADCAP
MAP/1™
MASSBAL MK II
OPTDES.BYU
PCGPAK, SMPAK
SCICONIC/VM
SEP
SETS
SIMAN
SLAM II®
TESS™
XMP LIBRARY

Languages, Data Management and Other Tools

BENCHMARKING UTILITIES
CIVIC
CREATABASE®
CROSSREF
DDT
DMM
FORGE™
FUS
HIERARCHY
HISTORIAN® PLUS
JAKEF
LRSYS
MAT
PAT
PRECOMP
PROLOG
PSL
RATFOR
READMS/WRITMS™
RIOT
RTIRIM
SCIBENCH
SIR/DBMS
SLIB77
SML
SPSS-X™
TRIXGL
VAMGR™
VAST®
VAST®-2/Fortran 8x
VISUAL BASE
X910

Other

BASELIB
CTSSLINK, SED, PCSEND

CRAY



608 Second Avenue South
Minneapolis, MN 55402
612/333-5889
Telex: 4991729

Domestic sales offices

Albuquerque, New Mexico
Atlanta, Georgia
Beltsville, Maryland
Bernardsville, New Jersey
Boston, Massachusetts
Boulder, Colorado
Chicago, Illinois
Cincinnati, Ohio
Colorado Springs, Colorado
Dallas, Texas
Darien, Connecticut
Detroit, Michigan
Houston, Texas
Huntington Beach, California
Huntsville, Alabama
Laurel, Maryland
Los Angeles, California
Minneapolis, Minnesota
Pittsburgh, Pennsylvania
Pleasanton, California
Seattle, Washington
St. Louis, Missouri
Sunnyvale, California
Tampa, Florida
Tulsa, Oklahoma

International business centers

Cray Asia/Pacific Inc.
Hong Kong
Cray Canada Inc.
Toronto, Canada
Cray Research France S.A.
Paris, France
Cray Research GmbH
Munich, West Germany
Cray Research Japan, Limited
Tokyo, Japan
Cray Research S.R.L.
Milan, Italy
Cray Research (UK) Ltd.
Bracknell, Berkshire, UK

Cover Credit:

Numerically generated streamlines about a modified F-16 configuration courtesy of NASA/Ames Research Center.
Computations by Dr. Jolen Flores.